

- Studying $H \rightarrow VV$ tensor structure in $H \rightarrow ZZ^* \rightarrow 4\ell$ decay channel with emphasis on measurement of CP-violation/anomalous couplings
- Assuming Spin-0 resonance and modelling arbitrary CP-structure with Higgs characterisation model using framework of effective field theory (arXiv:1306.6464v3 [hep-ph])
- On-going:
 - So far generator level studies, start of official request for SM gg + vbf MG5 samples
 - Any idea how to generate VH production with hadronic V decay in MG5?
 VBF + VH: generate p p > x0 j j
 VBF wo. VH: generate p p > x0 j j \$\$ w+ w- z
 VH wo. VBF: ?
 - Is there an interference term on ME level for the mixture of a scalar (0^+) with a pseudoscalar (0^-) particle?